U.S. EPA, Office of Transportation and Air Quality, Transportation and Climate Division

FISCAL YEAR 2017

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE TEMPLATE

INSTRUCTIONS: States and territories applying for FY 2017 DERA State Clean Diesel Grant Program funding must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the FY 2017 STATE CLEAN DIESEL PROGRAM INFORMATION GUIDE for full Program details, eligibility criteria and funding restrictions, and application instructions.

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SUMMARY PAGE

Project Title: New Hampshire State Clean Diesel FY2017 Program Plan

Project Manager and Contact Information

[redacted]

Project Budget Overview:

	FY 2017
EPA Base Allocation	$225,984
State or Territory Matching Funds (if applicable)	$225,984
EPA Match Incentive (if applicable)	$112,992
Mandatory Cost-Share	To be determined
TOTAL Project	$564,961
Additional Leveraged Resources	$

Project Period

October 1, 2017 – September 30, 2018

Summary Statement

New Hampshire's State Clean Diesel program is a sub-grant program designed to reduce diesel emissions. The program will be applied broadly across various sectors in the state, employing a variety of diesel reduction strategies. The program will target primarily publicly-owned fleets that operate in highly populated areas, areas with sensitive receptor groups such as schools or hospitals, or areas that receive a disproportionate quantity of air pollution from diesel fleets, and

in areas that are near non-attainment for other pollutants such as particulate matter. Provided they are available in time, New Hampshire also intends to use Volkswagen Environmental Mitigation Trust funds (VW Trust Funds) to match the federal funds for the fiscal year 2017.

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SCOPE OF WORK

PROJECT DESCRIPTION/GOALS AND PRIORITIES

New Hampshire Department of Environmental Services (NHDES) will institute a subgrant program to fund projects that reduce on-and off-road (including stationary) diesel engine emissions in the state. This will be accomplished via a solicitation whereby projects are rated on the basis of potential emission reduction, health benefit, location in the state and expected service life of the vehicle or equipment. Additionally, as stated in Appendix D-2 of the Partial Consent Decree for the *Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation*, use of VW Trust Funds as non-federal voluntary match is an eligible mitigation action expenditure. New Hampshire intends to use this option to match the federal funds for the fiscal year 2017 grant, provided they are available in time.

Even with today's cleaner fuels and new heavy-duty greenhouse gas and fuel efficiency rules, millions of diesel engines already in use continue to emit large amounts of nitrogen oxides, particulate matter and air toxics which contribute to serious public health problems including asthma, lung cancer and various other cardiac and respiratory diseases. These problems result in thousands of premature deaths, millions of lost work days, and numerous other negative health impacts every year. In 2012, the World Health Organization classified diesel exhaust as a Group 1 (human) carcinogen. In addition, older, less efficient diesel vehicles emit greater amounts of greenhouse gas emissions that contribute to climate change.

Principal pollutants of concern with diesel emissions are fine particulate matter ($PM_{2.5}$), air toxics, greenhouse gases, and oxides of nitrogen (NO_x) that contribute to the formation of ground level ozone. Currently, all of New Hampshire is unclassifiable/attainment under the 2008 8-Hour Ozone National Ambient Air Quality Standard (NAAQS).

Fine particulate levels have also decreased in the state since the early 1990s. Presently, New Hampshire is in attainment statewide for the current 2012 fine particulate NAAQS. While $PM_{2.5}$ has generally been improving throughout New Hampshire, some areas periodically exceed the NAAQS threshold of 35$\mu g/m^3$ for health.

Over the past five years, New Hampshire has experienced an annual average of 2.8 ozone "Air Quality Action Days;" days with expected unhealthy concentrations of ground-level ozone for sensitive individuals. In addition, concentrations of fine particle pollution over the same five year period have reached unhealthy levels in certain locations. Valley areas during cold-season temperature inversions are particularly susceptible to elevated PM2.5 concentrations.

Mobile sources continue to be a major source of these pollutants. New Hampshire's 2014 National Emissions Inventory indicates that diesel emissions account for almost 30 percent of the NO_x emissions in the state. The majority of $PM_{2.5}$ emissions are from on- and off- road diesel vehicles. On-road diesel vehicles contribute more than half of the total emissions of all pollutants combined among mobile diesel users.

NHDES chooses to support a variety of emission reduction strategies and project partners in order to maximize our success. Past experiences with the State Clean Diesel program indicate that idle reduction technology and vehicle replacements are favored by diesel vehicle and equipment users in the state. In addition to supporting vehicle replacement projects that utilize new, cleaner diesel engines, NHDES will also encourage applicants to consider use of cleaner alternative fuels.

VEHICLES AND TECHNOLOGIES

1. Eligible Applicants and Vehicles

The solicitation will be open to municipal, State or regional agencies and departments and, as funds allow, to private sector businesses operating primarily in New Hampshire.

2. Eligible Diesel Vehicles, Engines and Equipment

A. Buses (school buses Types A-D, medium and heavy duty transit);
B. Medium-duty or heavy-duty trucks;
C. Marine Engines;
D. Locomotives, and
E. Non-road engines, equipment or vehicles used in:
   i. Construction;
   ii. Handling of cargo (including at a port or airport);
   iii. Agriculture;
   iv. Mining; or
   v. Energy production (including stationary generators and pumps, excluding those used intermittently or for emergencies).

3. Eligible Diesel Emission Reduction Solutions

Projects must include one or more of the following diesel emission reduction solutions and employ certified engine configurations and/or verified technologies. Technology changes will not be allowed after a proposal has been selected.

A. Exhaust Controls
   Exhaust Controls are pollution control devices installed in the exhaust system or systems that include crankcase emission control. NHDES will reimburse up to 100 percent of the cost (labor and equipment) for one or more of the verified emission control found at www.epa.gov/cleandiesel/verification/verif-list.htm and www.arb.ca.gov/diesel/verdev/vt/cvt.htm.

   The actual exhaust control technologies must be specifically named on one of these lists.

B. Engine Upgrades

Engine upgrades involve the removal and replacement of engine parts to a configuration that is cleaner than the original engine. Engine upgrades may not be available for all engines, and not all upgrades may achieve an emissions benefit. Therefore, proposals for upgrades must include a discussion of the availability of engine upgrade kits/systems and indicate the pre- and post-project emission standard levels. NHDES will reimburse up to 40 percent of the cost (labor and equipment) of an eligible nonroad engine upgrade. To be eligible for funding, the upgrade must either be a verified retrofit found at http://www.epa.gov/cleandiesel/verification/verif-list.htm or a certified remanufacture system that will result in an emissions benefit.

C. Cleaner Fuel Use

Cleaner fuels include, but are not limited to, biodiesel, diesel fuel additives verified by Environmental Protection Agency (EPA) or California Air Resources Board (CARB), compressed natural gas, propane, and other certified alternative fuels. NHDES will reimburse the cost differential between the cleaner fuel and conventional diesel fuel if that fuel is used in combination, and on the same vehicle, with one of the following: a new eligible verified exhaust control, eligible clean alternative fuel conversion, eligible engine upgrade, eligible certified engine repower, or eligible certified vehicle/equipment replacement indicated in this program. Stand-alone fuel use projects are not eligible.

D. Verified Idle Reduction Technologies

Idle reduction projects include the installation of technologies or devices that reduce necessary idling of diesel vehicles or equipment and/or is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or remains stationary. The reduction in idling will conserve diesel fuel and lower emissions. Eligible EPA verified idle reduction technologies can be found at http://www.epa.gov/smartway/forpartners/technology.htm#tabs4.

Technology categories include auxiliary power units and generator sets, battery air conditioning systems, thermal storage systems, electrified parking spaces (truck stop electrification), fuel operated heaters, shore connection systems and alternative maritime power, shore connection systems for locomotives, and automatic shutdown/start-up systems for locomotives.

Electrified Parking Spaces and Shore Power Systems: NHDES will reimburse up to 30 percent of the cost (labor and equipment) of eligible electrified parking space (EPS) technologies. Technologies include those operating independent of the truck's engine allowing the engine to be turned off as the EPS's system supplies heating, cooling, and /or electrical power. Shore power systems allow maritime vessels to "plug into" an electrical power source instead of using diesel main or auxiliary engines while in port. NHDES will reimburse up to 25 percent of eligible shore power systems.

Vehicle Idle Reduction Technologies: NHDES will not fund stand-alone idle reduction technologies, except for idle reduction technologies on locomotives, shore connection systems and truck stop electrification, or previously retrofitted school buses. NHDES will provide up to 100 percent of the cost (labor and equipment) of an eligible, verified idle reduction technology if the technology is combined on the same vehicle with a new eligible verified exhaust control funded through this grant program. Auxiliary power units (APUs) are eligible for installation on long haul Class 8 vehicles with 2006 model year and older certified engine configurations only. NHDES will also reimburse 100 percent of the cost (labor and equipment) of verified idle reduction technologies on school buses with model year 2006 or older engines that have been previously retrofitted with a verified exhaust control device.

E. Verified Aerodynamic Technologies and Verified Low Rolling Resistance Tires
Long haul Class 8 trucks can be retrofitted with aerodynamic trailer fairings and low rolling resistance tires to improve fuel efficiency. Eligible EPA verified aerodynamic technologies can be found at: www.epa.gov/smartway/forpartners/technology.htm#tabs-2 and include:
i. Gap fairings that reduce the gap between the tractor and the trailer to reduce turbulence;
ii. Trailer side skirts that minimize wind under the trailer; and
iii. Trailer rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
Eligible EPA verified low rolling resistance tires can be found at: http://www.epa.gov/smartway/forpartners/technology.htm#tabs-3, and include both dual tires and single wide tires. NHDES will not cover stand-alone aerodynamic technologies or low rolling resistance tires but will cover up to 100 percent of the cost (labor and equipment) for one or more verified aerodynamic technologies or verified low rolling resistance tires installed on long haul Class 8 trucks, if combined on the same vehicle with the new installation of one or more of the verified exhaust controls.

F. Certified Engine Replacement
Engine replacement includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternative fuel, diesel engine replacement with an electric power source (grid, battery or fuel cell), and/or diesel engine replacement with an electric generator(s) (genset). All-electric (i.e. zero emission) engine replacements do not require EPA or CARB certification. Proposals for replacements must include the pre- and post- project standard emission levels of the engines to be replaced.

Highway, Locomotive, Marine, and Nonroad Vehicles and Equipment: NHDES will reimburse up to 40 percent of the cost (labor and equipment) of replacing a highway, marine, locomotive or nonroad diesel engine with a 2017 model year or newer diesel engine certified to EPA emission standards. NHDES will reimburse up to 60 percent of the cost (labor and equipment) of replacing a diesel engine with an electric motor or an electric power source.

Electric Generator Replacement: For replacements of existing diesel propulsion engine with a stationary or auxiliary diesel powered electric generator (genset), the electric generator and engine comprising the genset are both eligible costs.

ii) Replacement of an existing genset involves replacing the existing diesel engine in the genset with a newer, cleaner engine. Only the newer, cleaner engine (labor and equipment) is an eligible cost of the repower.

Replacement Criteria

Replacement projects are eligible for funding if the replaced vehicle, engine or equipment will continue to perform the same function; the replacement engine is of similar horsepower as the engine being replaced, and the replaced engine is permanently disabled or remanufactured. The engine being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to MY 2007 or newer certified emission standards. Proof of scrappage or remanufacture will be required.

In addition, replacements must be made in advance of normal attrition. Normal attrition is defined as a repower that is scheduled to take place within 3 years of the project start date.

G. Vehicle and Equipment Replacements

Nonroad and highway diesel vehicles and equipment are eligible to be replaced with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and use engines certified by EPA and if applicable, CARB to meet a more stringent engine emission standards. Replacement projects can include the replacement of diesel vehicles/equipment with newer, cleaner diesel, electric (battery or fuel cell), hybrid or alternative fuel vehicles/equipment. All-electric (i.e. zero emission) vehicles and equipment do not require EPA or CARB certification.

i) Locomotives and Nonroad Diesel Vehicles and Equipment: NHDES will reimburse the incremental cost of a newer, cleaner vehicle or piece of equipment powered by a 2017 model year or newer certified nonroad engine, up to 25 percent of the cost of an eligible replacement vehicle/equipment.

ii) Highway Diesel Vehicles and Buses (other than Drayage): NHDES will reimburse the incremental cost of a newer, cleaner medium or heavy-duty vehicle, powered by an engine certified to the 2017 model year or newer standards for highway heavy-duty engines, up to 25 percent of the cost of an eligible replacement vehicle/ equipment. Replacement vehicles must be equipped with a particulate filter (or catalyst in the case of a compressed natural gas (CNG) engine), and compliant with the regulatory requirements for vehicles or equipment manufactured in 2014 or later.

iii) Replacements for Drayage Vehicles: NHDES will reimburse up to 50 percent of the cost of eligible drayage trucks, defined as any Class 8b in-use, on-road vehicle with a gross vehicle weight rating (GVWR) greater than 33,000 pounds operating on or

transgressing through port or intermodal rail yard property for the purpose of loading, unloading or transporting cargo. Replacement vehicles must be equipped with a particulate filter (or catalyst in the case of a compressed natural gas (CNG) engine), and compliant with the regulatory requirements for vehicles or equipment manufactured in 2014 or later.

iv) Replaced drayage vehicles must be scrapped, and proof must be provided that the drayage trucks purchased with grant funds are operated in a manner consistent with the definition of a drayage truck as defined above.

Replacement Criteria: Replacement projects are eligible for funding on the condition that the following criteria are satisfied:

i) The replacement vehicle/equipment must be of the same type and similar gross vehicle weight rating or horsepower as the vehicle/equipment being replaced.

ii) Horsepower increases of more than 25 percent may not be eligible for reimbursement. The replacement vehicle/equipment must perform the same function as the vehicle/equipment that is being replaced.

Early Attrition: Replacement projects are only eligible for funding if the equipment is being replaced in advance of a normal replacement schedule. Applicants may be required to provide evidence of early replacement such as capital budgets or an approved replacement schedule that shows the equipment is an early replacement. Vehicles or equipment scheduled for replacement prior to October 2019 are not eligible.

Replacement Scrappage: Vehicles/equipment must be scrapped as defined below. Evidence of appropriate disposal (such as a photograph of the scrapped vehicle/equipment), including engine serial number and vehicle identification number (VIN) will be required.

i) Nonroad Vehicles and Equipment: The vehicle/equipment being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to the cleanest certified emission standard possible. Cutting a three-inch by three-inch hole in the engine block (the part of the engine containing the cylinders) is the preferred scrapping method.

ii) Highway Vehicles: The vehicle being replaced must be scrapped or rendered permanently disabled or returned to the original engine manufacturer for remanufacturing to engine MY 2007 or newer certified emission standards. Cutting a three-inch by three-inch hole in the engine block (the part of the engine containing the cylinders) is the preferred scrapping method.

H. Clean Alternative Fuel Conversions
Conversion of conventional, original equipment manufacturer highway diesel vehicles and engines to operate on alternative fuels such as propane, natural gas, alcohol, or electricity are eligible for up to 40 percent of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion. Proposals for clean alternative fuel conversions must include a discussion of the availability of conversion systems and indicate the pre- and post-project emission standard levels of the engines in order to demonstrate that the conversion will result in an emissions benefit. Eligible alternative fuel conversion systems are listed at: www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm. Vehicles proposed for conversion must be new or less than 1 year old. Clean alternative fuel conversions must be "dedicated" or "mixed fuel", meaning the engine runs only on the alternative fuel, or uses a small amount of diesel mixed with the alternative fuel. Dedicated or mixed fuel engines do not have the ability to operate solely on diesel fuel. "Dual fuel" or "bi-fuel" conversions, meaning the engine can switch between fuel sources and still has the capability of running on 100 percent diesel, are not eligible for funding.

ROLES AND RESPONSIBILITIES

As with prior projects, NHDES will collaborate with other state agencies, municipalities and school districts, public and private transit companies, and marine operators and private fleets. As noted, we believe that making the sub-grants available to the widest possible audience will help with our success. Use of VW Trust Funds to match the federal funds for fiscal year 2017 will likely focus on publicly owned fleets.

TIMELINE AND MILESTONES

- 10/01/17 – A Request for Proposals (RFP) by NHDES will be released. In addition to posting on the NHDES website, the open solicitation will be publicized via a monthly newsletter geared to municipalities, and via relationships with NH Local Energy Solutions Workgroup, New Hampshire School Transportation Association, NH Local Government Center, NH Municipal Association and NH Association of Counties, NH Motor Transit Association, NH Association of General Contractors, Granite State Clean Cities Coalition and others. The list of publications to target and groups to contact will be developed prior to the project start date.

- 10/28/17 – Round 2 RFP – If all program funding is not obligated during an initial round, a subsequent round of funding may be offered

- 12/31/17 – Submit Round 1 grant agreements for approval by Governor and Council

- 02/15/18 – Submit Round 2 grant agreements for approval by Governor and Council

- 01/01/18 – 08/31/18 – Round 1 and Round 2 project implementation

- 01/31/18, 04/30/18, 07/31/18 and 10/31/18 – Submit quarterly reports to EPA

- 12/31/18 – Submit final report to EPA

Following the effective date of their agreement, project awardees will be responsible for submitting quarterly status reports to NHDES for a period of one year beginning with the first quarter following the completion of the work or by 10/15/18, whichever comes first. Beginning one year after completion of the final quarterly report, awardees will be responsible for submitting annual reports to NHDES for a period of three years.

In order to ensure that up to date project information continues to be available, periodic reviews of program information on the NHDES website will be completed.

Diesel Emission Reduction Act (DERA) PROGRAMMATIC PRIORITIES

NH's Clean Diesel Program will prioritize projects for diesel vehicles and equipment operating in highly populated areas, areas with sensitive receptor groups such as schools or hospitals, or areas that receive a disproportionate quantity of air pollution from diesel fleets, and in areas that are near non-attainment for other pollutants such as particulate matter. New Hampshire will ensure that the programmatic priorities, as outlined in the Diesel Emissions Reduction Act of 2010, 42 USC 16131 *et seq*., will be met by selecting diesel emission reduction projects that:

1. Maximize public health benefits;
2. Are the most cost-effective;
3. Are in areas with high population density, that are poor air quality areas (including near nonattainment of national ambient air quality standards for a criteria pollutant); Federal Class I areas; or areas with toxic air pollutant concerns;
4. Include a certified engine configuration or verified technology that has a long expected useful life;
5. Maximize the useful life of any certified engine configuration or verified technology used or funded by the eligible entity; and
6. Conserve diesel fuel.

Diesel exhaust is a complex mixture of pollutants including particulate matter, nitrogen oxides and volatile organic compounds which contribute to smog, acid rain, climate change, and a range of health problems. Truck drivers, railroad workers and equipment operators may have an increased risk of health related issues from occupational exposure to diesel exhaust. The $PM_{2.5}$ and toxic chemicals found in diesel exhaust can lead to respiratory problems and exacerbate asthma. According to "Asthma Burden Report New Hampshire 2014," New Hampshire has a "significantly higher" asthma prevalence rate when compared to the rest of the nation, with approximately 11percent of adults and 10.6 percent of children currently afflicted with the disease. EPA indicates the fine particles in diesel exhaust can aggravate asthma and cause lung damage and premature death. In 2012, the World Health Organization declared diesel exhaust to be carcinogenic to humans.

NHDES will continue to support idle reduction projects as a low cost means of reducing emissions. The use of fuel-fired auxiliary heaters not only reduces emissions, it conserves fuel, supporting a goal of NH's Climate Action Plan.

Vehicle replacements are an effective option because they eliminate the need for matching retrofit equipment to the engine or vehicle, and provide the highest emission reduction over the useful life of the engine. Alternative fuel vehicles accomplish emission reductions and promote the use of alternative fuels in the region. Replacing a diesel powered vehicle with a vehicle fueled by propane, CNG or electricity eliminates the high maintenance costs associated with the newer diesel engine systems.

Engine replacements can be a cost effective means of reducing emissions in existing vehicles, particularly for off-road equipment. Exhaust controls are another lower cost option, but they do not offer the economic incentive of fuel savings or maximizing the useful life of the vehicle or engine. NHDES seeks to promote all diesel reduction strategies outlined in this document, to promote emissions reduction and further the improvement of promising technologies.

New Hampshire intends to use VW Trust Funds to match the federal funds for the fiscal year 2017 grant. Projects utilizing VW Trust Funds will reduce emissions of NOx and support the goals of the New Hampshire Beneficiary Mitigation Plan.

EPA's STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS

1. Linkage to EPA Strategic Plan

The U.S. EPA National Air Toxics Assessment (NATA) estimates that average risk values of air toxics benzene and formaldehyde exceeds health benchmarks in every New England state. Diesel particulate matter is also an air toxic of concern since the estimated ambient concentrations are high in the Northeast. Most of these chemicals are carcinogens and may cause other health effects, such as exacerbation of asthma. The program reduces black carbon emissions and, through fuel savings, lowers greenhouse gas emissions. Reducing risk from toxic air pollutants and the threats posed by climate change are consistent with EPA Strategic Plan Goal 1.

2. Outputs
   - A. NHDES will issue an RFP as described in the Project Description section of this work plan. NHDES will evaluate the proposals based on program goals.
   - B. The Diesel Emission Quantifier (DEQ) and / or Motor Vehicle Emission Simulator (MOVES) will be used to quantify project benefits before project selections are made. These may include one or a combination of the following:
     - i. Exhaust retrofit: up to eight projects depending of vehicle or equipment type.
     - ii. Aerodynamic Technologies and Low Rolling Resistance Tires: up to six projects.
     - iii. Engine upgrade or repower: one to four projects depending on engine type.
     - iv. Idle reduction. Fifteen to twenty fuel operated heaters or auxiliary power units, depending on application, and/or two shore power systems.
     - v. Vehicle replacement: up to six projects depending on vehicle type.
     - vi. Vehicle conversion: up to six diesel to CNG conversions or diesel to diesel + CNG conversions.

C. Potential outputs presented below were estimated using the Diesel Emissions Quantifier.

i. Engine repower: Engine repowers can provide up to one ton of NO_x and 500 lbs. $PM_{2.5}$ of annual emission reduction.

ii. Idle reduction: Transit buses and long distance haulers can provide 4 and 6 tons respectively of NO_x emission reductions in their lifetime. Idle reduction devices provide cost effective reductions in CO_2 emissions and result in fuel savings.

iii. Vehicle Replacements: Vehicle replacements can yield cost-effective NO_x reductions and can provide sustained clean air benefits in a community. Deployment of alternative fuel vehicles and associated infrastructure promotes adoption by others and reduces petroleum imports.

iv. Conversion to Alternative Fuel: In addition to using a less expensive, domestically-produced alternative fuel as a replacement for up to 70 percent of the diesel gallons normally used, converting a vehicle to run on an alternative fuel and diesel provides some reduction in greenhouse gas emissions.

D. Program Completion Report

NHDES will undertake a full evaluation of the program. The program completion report will include the number of miles or hours retrofitted units have been in service since the retrofits occurred, fuel consumption since the retrofit, emissions reduced or eliminated, maintenance issues (if any), and documentation of outreach conducted in support of the project. Below is an outline of the minimum information for the program completion report and this will be supplemented with additional information that is relevant to the project that would be useful for others.

i. Description of Project
ii. Project Partners & Goals
iii. Technologies – General and specific including parts and suppliers
iv. Vehicles/Engines

Notification of grants awarded is posted on https://www.nh.gov/council/ Executive Council Meeting Results webpage as grants are approved by Governor and Council, and a complete list of awardees is available to the public upon request. The notifications include the total number and dollar amount of grants as well as a breakdown of the technologies funded.

3. Outcomes

Some specific outcomes of the NH Clean Diesel Program include:

- Better understanding, knowledge and acceptance of currently available pollution control technology and equipment by state and municipal fleet managers, fleet owners and the public and school transportation sectors;
- Increased data and information on verified control equipment/technology for use by other potential users;
- Expansion of alternative fuel vehicle use in the state;
- Increased awareness of the health and climate change benefits of particulate controls, alternative fuels, and reduced idling in the state's transportation sector and by the traveling public who will be made aware of the program through outreach;

- Sustained or improved air quality in NH;
- Reduced NOx emissions.

This project does not involve environmentally related measurements or data generation, therefore the requirements of 40 CFR 31.45 do not apply.

SUSUTAINABILITY OF THE PROGRAM

NHDES' Mobile Sources Section includes a grant manager with extensive experience who also serves as New Hampshire's Clean Cities Coordinator. This individual is acquainted with many of the state's public and private fleet managers and will manage the program. Technical support is provided by the other staff in the section.

NHDES is committed to continue to educate diesel equipment users about the environmental, health, and monetary benefits of utilizing emission reduction technology, cleaner fuels, cleaner vehicles, and modifying driver behavior.

BUDGET NARRATIVE

This section of the work plan should include a detailed itemized budget proposal (in addition to the Standard Form 424A), using the example below. Justify the expenses for each of the categories being performed within the grant/project period. Indicate which costs will be paid by the state's or territory's allocation from EPA (which would include the bonus match, if applicable) and which costs will be paid by the state's or territory's voluntary matching funds, if applicable.

Applicants must **itemize** costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs. If the project budget includes any cost-share, mandatory or voluntary, the budget detail portion of the work plan must include a detailed description of how the applicant will obtain the cost-share and how the cost-share funding will be used.

Mandatory cost-share funds must be in the form of cash contributions to the Equipment Category. If EPA accepts an offer for a voluntary cost-share, applicants must meet their sharing commitment in order to receive EPA funding. If the proposed cost-share is to be provided by a third-party, a letter of commitment is encouraged. Any form of cost-share included in the budget detail must also be included on the SF-424 and SF-424A.

Applicants should use the following instructions, budget category descriptions and example table to complete the budget detail section of the work plan. Detailed sample budgets representing various mandatory cost-share versus state voluntary match scenarios are available at: www.epa.gov/cleandiesel/clean-diesel-state-allocations.

Itemized Project Budget

FY 2017			
Budget Category	**EPA Allocation**	**Voluntary Match (if applicable)**	**Mandatory Cost-Share (if applicable)**
1. Personnel	$33,488		
2. Fringe Benefits	$13,560		
3. Travel			
4. Supplies			
5. Equipment			
6. Contractual			
7. Program Income			
8. Other	$289,063	$225,984	To be determined
9. Total Direct Charges			
10. Indirect Charges	$2,865		
Grand Total	$338,977	$225,984	To be determined

Explanation of Budget Framework

Personnel

- **Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.** This category includes only direct costs for the salaries of those individuals who will perform work directly for the project (generally, paid employees of the applicant organization). If the applicant organization is including staff time (in-kind services) as a cost share, this should be included as Personnel costs. Personnel costs do not include: (1) costs for services of consultants, contractors, consortia members, or other partner organizations, which are included in the "Contractual" category; (2) costs for employees of subrecipients under subawards, which are included in the "Other" category; or (3) effort that is nor directly in support of the proposed project, which may be covered by the organization's negotiated indirect cost rate. The budget detail must identify the personnel category type by Full Time Equivalent (FTE), including percentage of FTE for part-time employees, number of personnel proposed for each category, and the estimated funding amounts.

- **Annual Salary:**

- **Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State, number of travelers, and other costs for each type of travel.** Travel may be integral to the purpose of the proposed project (e.g. inspections) or related to proposed project activities (e.g. attendance at meetings). Travel costs do not include: (1) costs for travel of consultants, contractors, consortia members, or other partner organizations, which are included in the "Contractual" category; (2) travel costs for employees of subrecipients under subawards, which are included in the "Other" category.
  No travel expenses will be charged to this grant for program implementation. Existing state funds will be used to cover such expenses if any are incurred.

- **Equipment - Identify each item to be purchased which has an estimated acquisition cost of $5,000 or more per unit and a useful life of more than one year.** Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts. These types of proposed costs should be

included in the "Other" category. Items with a unit cost of less than $5,000 should be categorized as supplies, pursuant to 2 CFR Part 200. The budget detail must include an itemized listing of all equipment proposed under the project.
No equipment purchases beyond the subawards for equipment specified under "other" below will be made using these funds.

- **Supplies - "Supplies" means all tangible personal property other than "equipment".** The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the "Other" category.
  No supplies will be purchased using these funds.

- **Contractual - Identify each proposed contract and specify its purpose and estimated cost.** Contractual/consultant services are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. Leased or rented goods (equipment or supplies) should be included in the "Other" category. The applicant should list the proposed contract activities along with a brief description of the scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or non-competitive), if known.
  No contractual/consultant services are anticipated to be needed for this project.

- **Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.** This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and subaward costs. Subawards (e.g., subgrants) are a distinct type of cost under this category. The term "subaward" means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Subcontracts are not subawards and belong in the contractual category. Applicants must provide the aggregate amount they propose to issue as subaward work and a description of the types of activities to be supported.
  Only subawards will be made under this category and the details of those subawards will not be known prior to the completion of a solicitation for project proposals. NHDES intends to issue subawards via grant agreements with eligible applicants and for eligible projects as described in New Hampshire's Program Plan, which is consistent with EPA's DERA program requirements. A total of $138,208 in federal DERA funds and $108,340 in matching funds are budgeted in this category.

- **Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base.** Indirect costs are those incurred by the grantee for a common or joint purpose that

benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant must have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or must have submitted a proposal to the cognizant Federal or State agency. **Indirect Costs = 6.09% of the sum of personnel and fringe benefits.**

	Total Indirect Costs
Grant Manager	**$1,146**
Transportation Program Specialist	**$1,719**

Administrative Costs Expense Cap

States and territories must demonstrate that no more than 15 percent of a state's or territory's total project costs are being used to cover administrative costs as identified in OMB Circular A-87 Appendix B (e.g. personnel, benefits, travel, supplies). Total project costs include the federal share as well as any cost-share provided by the state. However, Regions have the discretion to allow state matching funds to exceed the 15 percent cap if the state provides justification for unique circumstances. The 15 percent maximum does not include indirect cost rates or funds assigned to projects, and total cost for the budget period.
Based on the calculations completed in the tables above, the administrative costs are below the 15% allowable cap.

Matching Funds and Cost-Share Funds

States and territories must provide a detailed description of the source of funding for any voluntary match or mandatory cost-share funds included in the project budget, if applicable. Include details on when the match will be available for use. If applicable, include letters of financial support, which specifically indicate how supporting organizations will assist in the project.

See Sections V.B and X of the Program Guide for more information on the voluntary matching incentive and mandatory cost-share funds.

As stated in Appendix D-2 of the Partial Consent Decree for the *Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation*, an eligible mitigation action expenditure is to utilize trust funds for the non-federal voluntary match of the Diesel Emission Reduction Act (DERA) grant. New Hampshire intends to use this option to match the federal funds for the fiscal year 2017 grant using the Volkswagen Trust Funds, provided they are available in time. At this time we are not sure when these funds will be available; however, they are anticipated to be available in late calendar year 2017 or early calendar year 2018. Due to the uncertainty of these funds availability, New Hampshire will not obligate funds to subaward grantees from the match or the EPA bonus until availability of funds from the VW Trust Fund is confirmed.

The mandatory cost-share funds will be determined after a solicitation of projects has been completed. The solicitation of projects will be completed with a focus on public fleets (municipal and state) and the cost share funds will be provided by the subaward grantees.